

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Currently Amended) A time division duplex data frame embodied in a computer readable medium and utilized within a wireless frequency hopping digital communications system, where communications in successive data frames occur on different wireless carrier frequencies, each data frame being comprised of:

a primary data transmission period during which a first block of digital data is transmitted, where the first block of digital data has not been previously transmitted;

a redundant data transmission period during which a second block of digital data is transmitted, where the second block of digital data was previously transmitted at a different carrier frequency during the primary data transmission period of the prior data frame;

a primary data receive period during which a third block of digital data is received, where the third block of digital data has not previously been received;

a redundant data receive period during which a fourth block of digital data is received, where the fourth block of digital data was previously received at a different carrier frequency during the primary data receive period of the prior data frame.

2. (Original) The data frame of claim 1, the data frame further comprising:

a transmit preamble during which error detection information associated with the contents of the primary data transmit period and the redundant data transmit period is transmitted;

a receive preamble during which error detection information associated with the contents of the primary data receive period and the redundant data receive period is received.

3. (Original) The data frame of claim 1, in which the second block of data is only transmitted if the battery power level of a battery-powered wireless communications device utilizing the data frame exceeds a predetermined level.

4. (Original) The data frame of claim 1, in which the fourth block of data is only received if the battery power level of a battery-powered wireless communications device utilizing the data frame exceeds a predetermined level.

5. (Original) The data frame of claim 3, in which the fourth block of data is only received if the battery power level of a battery-powered wireless communications device utilizing the data frame exceeds a predetermined level.

6. (Original) The data frame of claim 1, in which the second block of data is only transmitted if the quality of communications within the wireless frequency hopping communications system fails to satisfy a predetermined quality threshold.

7. (Original) The data frame of claim 6, in which the predetermined quality threshold is a maximum bit error rate.

8. (Original) The data frame of claim 1, in which the fourth block of data is only received if the quality of communications within the wireless frequency hopping communications system fails to satisfy a predetermined quality threshold.

9. (Original) The data frame of claim 8, in which the predetermined quality threshold is a maximum bit error rate.

10. (Currently Amended) A time division duplex data frame embodied in a computer readable medium and utilized within a wireless frequency hopping digital communications system, where communications in successive data frames occur on different wireless carrier frequencies, each data frame being comprised of:

a primary data receive period during which a first block of digital data is received, where the first block of digital data has not been previously received;

a redundant data receive period during which a second block of digital data is received, where the second block of digital data was previously received at a different carrier frequency during the primary data transmission period of the prior data frame.

11. (Previously Presented) A method for communicating data between a first device and a second device via a wireless frequency hopping digital communications link, which method is comprised of the steps of:

transmitting a first block of data from the first device to the second device during a first data frame period, where the first block of data has not been previously transmitted;

transmitting a second block of data from the first device to the second device during the first data frame period, where the second block of data was also transmitted by the first device during the data frame period immediately preceding the first data frame period.

12. (Previously Presented) The method of claim 11, which method further comprises the steps of:

transmitting a third block of data from the second device to the first device during the first data frame period, where the third block of data has not been previously transmitted;

transmitting a fourth block of data from the second device to the first device during the first data frame period, where the fourth block of data was also transmitted by the second device during the data frame period immediately preceding the first data frame period.

13. (Previously Presented) A method for communication data between a first device and a second device via a wireless frequency hopping digital communications link where the communications are divided into a plurality of data frames, which method is comprised of the steps of:

transmitting at least one data block within each frame from the first device to the second device, where each data block is transmitted one time;

determining that the quality of the communications link fails to satisfy a predetermined criterion;

transmitting a first data block and a second data block from the first device to the second device within each frame, the first data block containing data that has not been previously

transmitted from the first device to the second device, the second data block containing data that was also transmitted from the first device to the second device during the preceding frame.

14. (Original) The method of claim 13, in which the step of determining that the quality of the communications link fails to satisfy a predetermined criterion is further comprised of the substeps of:

measuring a bit error rate of data transmitted on the communications link;
determining that the bit error rate exceeds a predetermined maximum acceptable level.

15. (Previously Presented) A method for communication data between a first device and a second device via a wireless frequency hopping digital communications link where the communications are divided into a plurality of data frames and the first device is powered by a battery power source, which method is comprised of the steps of:

transmitting a first data block and a second data block from the first device to the second device within each frame, the first data block transmitted in a primary data period and containing data that has not been previously transmitted from the first device to the second device, the second data block transmitted in a redundant data period and containing data that was also transmitted from the first device to the second device during the preceding frame;

determining that the level of power remaining in the battery power source is below a predetermined threshold level; and

transmitting at least one data block within each frame from the first device to the second device, where each data block is transmitted only one time.

16. (Currently Amended) A method for receiving data via a wireless frequency hopping digital communications link via in which one data frame is transmitted during each frequency hop, the data frame including a primary period for receiving an initial copy of a data block and a secondary period for receiving a redundant copy of the data block, the method comprising the steps of:

receiving a first data frame containing a first data block and an error detection field associated with the contents of the first data block during a first frequency hop;

using the contents of the error detection field to determine that the first data block was received with one or more errors;

receiving a second data frame containing a second data block and an error detection field associated with the contents of the second data block during a second frequency hop immediately following the first frequency hop, where the contents of the second data block are identical to the contents of the first data block;

using the contents of the error detection field to determine whether the second data block was received with one or more errors;

storing null data into the buffer if the second data block was received with one or more errors;

storing the contents of the second data block into a buffer if the second data block was received without error.

17. (Currently Amended) A method for receiving data by a wireless device via a frequency hopping digital communications link, the communications link being comprised of a plurality of successive data frames, each data frame comprising a primary data period and a redundant data period, where the contents of the redundant data period are the same as the contents of the primary data period during the preceding frame, the method comprising the steps of:

receiving a first data frame, the first data frame also containing an error detection field associated with the contents of at least the first data period of the first data frame;

using the contents of the error detection field to determine that the contents of the first data period were received without any errors;

depowering a receiver circuit associated with the wireless device during receipt of at least the ~~second~~ redundant data period during a second data frame immediately following the first data frame; and

maintaining power in the receiver circuit during receipt of the primary data period during a second data frame immediately following the first data frame.